CALIFORNIA STATE UNIVERSITY, FRESNO

Health and Health Care Challenges in the San Joaquin Valley: A Briefing Paper for the California Partnership for the San Joaquin Valley

John A. Capitman, PhD and Kathleen Curtis, PT, PhD
Central Valley Health Policy Institute
California State University, Fresno

Context:

On June 24, 2005 California Governor Arnold Schwarzenegger established the California Partnership for the San Joaquin Valley. The Partnership brings state agency secretaries and Central Valley representatives together to make recommendations to the Governor regarding changes that would improve the economic well-being of the Valley and the quality of life of its residents. The Central Valley Health Policy Institute (CVHPI) was asked to provide briefing materials for the Partnership in August, 2005. CVHPI was established in 2002 at California State University, Fresno. In July 2003, the Institute was funded by The California Endowment, in partnership with the University, and tasked with facilitating an interactive regional process to identify, monitor, and analyze emerging health policy issues that influence the health status of people living in Central California through regional research, leadership training, and a graduate education program.

CVHPI has published a number of reports that together offer a compelling overview of the unique health and healthcare challenges facing the region. Among those reports accessed for this briefing paper are: *Healthy People 2010: A 2005 Profile of Health Status in the San Joaquin Valley*, (Bengiamin et al., 2005); *Medi-Cal Redesign: Implications for the San Joaquin Valley*, (Capitman et al., 2005); *Health in the Heartland: The Crisis Continues*, (Diringer et al., 2004); and *Healthy People 2010: A 2003 Profile of Health Status in the Central San Joaquin Valley*, (Perez and Curtis, 2003). All of these reports, and other publications of the Institute that are relevant to the work of the California Partnership for the San Joaquin Valley, can be accessed through the CVHPI web-site at www.csufresno.edu/ccchhs/pubs/.

This briefing is organized in two primary sections. First, we provide a current overview of health-relevant demographic features and health status indicators for the region. The overview is based on a San Joaquin Valley analysis of the *Healthy People 2010* ten leading health indicators. Second, we summarize evidence and commentary on the most pressing healthcare financing, organization, and delivery challenges facing the region. All supporting tables and figures referenced in this briefing are provided as an appendix.

Central Valley
Health Policy Institute
College of Health and Human Services
Central California Center for
Health and Human Services

1625 E. Shaw Ave., Suite 146
Fresno, CA 93710-8106
559.228.2150
Fax 559.228.2168

www.csufresno.edu/ccchhs

Demographic and Health Status Indicators

Demographics: Table 1 provides a summary of the major health-relevant demographic features of the San Joaquin Valley. The region's eight counties (Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus and Tulare) encompass a land area of 27,493 square miles and had a 2003 population of 3,582,797 people. The area is experiencing more rapid population growth and development than other parts of California. As Table 1 indicates, the region is younger and more heavily Latino than California as a whole. Although not shown, several of the counties in the region have also seen a greater influx of new legal immigrants, refugees, and undocumented immigrants relative to population compared to other areas of the state. For example, the Valley is home to the largest concentration of Laotian and Hmong refugees in the nation.

The region also has lower per-capita income, lower high-school graduation rates, greater unemployment, and a greater proportion of children under age 18 living in poverty than does California as a whole. These patterns are closely linked to the historical and current development of the region as it relies on agriculture and other typically low-wage industries as the backbone of its economy. In this context, there are cumulative effects of poverty for many Valley residents, expressed by issues such as food insecurity, substandard housing, poor access to health care and health insurance, low educational attainment, and persistent poverty from generation to generation. Beyond the impact of population growth on the region's healthcare and social service infrastructures, it is anticipated that as this relatively young population ages and new immigrants acculturate, there will be additional burdens on the health care system.

Leading Health Indicators: Since 1979, the US Department of Health and Human Services has tracked a number of indicators of the nation's health. *Healthy People: 2010* (US Department of Health and Human Services, 2000) established national priorities around health and health care with the goals of increasing life expectancy and quality of life, while eliminating health disparities by race/ethnicity, gender, education, income, disability, geographic location or sexual orientation. Included with these priorities are 10 leading health indicators that are used to measure progress towards meeting the overall *Healthy People: 2010* goals. In our new report, we examine progress by comparing the objectives of the 10 leading health indicators with current health status and indicators of change in the San Joaquin Valley to California and the nation.

Table 2 summarizes overall results by comparing mean current indicator values for the San Joaquin Valley to California, the nation, the *Healthy People 2010* target, and prior years. The findings provide little room for optimism that the San Joaquin Valley will meet the objectives. Currently, San Joaquin Valley residents have met the 2010 targets for adolescent tobacco use, adolescent immunization, and usual source of care for children and seniors. For each of the other indicators, where a comparison was possible, available data indicate little or no change and in some cases negative movement since prior available measures. The one exception to this pattern: rates of childhood, adolescent and elder immunizations improved in recent years.

Using conservative standards for drawing comparisons, Table 2 also indicates that health status in the San Joaquin Valley appears to be worse than for California as a whole on six of the indicators: adult overweight and obesity, adult tobacco use, motor vehicle deaths, air quality, flu shots for elders, and access to prenatal care. Specific data relevant to each of these comparisons are shown in Tables 3-5 and Figures 1-3.

Beyond the general picture drawn by these findings, a number of areas need special attention. Although target objectives for mental health and responsible sexual behavior could not be measured directly by available data, there was evidence for failures of mental health services in suicide rates that exceeded the state averages and lower than desirable use of condoms by adults, as suggested by high and growing rates of sexually transmitted diseases. Further, for these and most other indicators, when it was possible to conduct comparisons by race/ethnicity, insurance status, gender or urban/rural residence, the San Joaquin valley counties showed disparate outcomes that mirrored or exceeded the group differences observed in state and national level sources.

In addition to the *Healthy People 2010* measures, a number of other indicators underscore health status issues for the San Joaquin Valley. *Health and the Heartland*, (Diringer et al., 2004) reported rates of teen births and infant mortality that were higher than California as a whole, and excessive deaths in one or more of the region's counties from cancers, infectious diseases, diabetes, coronary heart disease and motor vehicle accidents. San Joaquin Valley counties also tended to have higher rates of diagnosed chronic conditions such as diabetes, hypertension, obesity, and asthma than most other parts of California.

These findings suggest that broad-scale new and intensified public health efforts are needed in the San Joaquin Valley to address some of the most daunting health challenges of the era, including overweight/obesity, tobacco and other substance use, depression and mental health services access, motor vehicle deaths, air quality and associated respiratory conditions, flu shots for elders, and access to prenatal and emergency services.

Healthcare Financing, Organization, and Delivery: There is mounting evidence that the San Joaquin Valley health care sector is poorly positioned to address current health challenges and may be unable to meet emerging needs associated with population growth and demographic changes. At least four sets of issues require special attention.

1. **Health Professional Shortages**: The San Joaquin Valley was notably underserved compared to California and the nation on several indicators involving the health professional workforce. In 2001, in the San Joaquin Valley, the number of primary care physicians and specialty care physicians per 1,000 population was well below the state average. Figures 4 and 5 provide more recent data. Figure 4 shows that rates of primary care physicians met or surpassed recommended levels for several Valley counties, but were notably lower in Kings County. However, as shown in Figure 5, all of the San Joaquin Valley counties had rates of specialty care physicians per population that were far below recommended levels or the state as a whole.

   All San Joaquin Valley counties, except for Stanislaus, also had rates of nurses per population below the state average in 2001. Similar patterns can be observed for dentists, mental health practitioners and the spectrum of allied health professionals. Recent discussions have emphasized the need for new investments in training health professionals who may be expected to stay in the region, but the potential benefits of such initiatives will take several years to be realized. Ongoing research by the CVHPI is exploring the consequences of health professional shortages on patterns of care for uninsured and publicly insured patients in the region.

2. **Challenges for Rural and Safety Net Hospitals**: The San Joaquin Valley's 56 hospitals include a number of facilities that serve primarily rural and low-income communities, as well as larger hospitals providing care to significant Medi-Cal, county indigent care program, and uninsured populations. These hospitals face daunting fiscal challenges. Although cost-based reimbursement under Medicare and state negotiated Medi-Cal, and Medi-Cal disproportionate share hospital and

emergency supplemental payments, have somewhat stabilized finances in some cases in recent years, many of the region's hospitals continue to experience significant annual shortfalls and heavy reliance on philanthropic support. How rural district hospitals, converted private hospitals (hospitals that were governmentally owned and operated that have been converted to private), and private hospitals that are safety net providers will fare under proposed changes in Medi-Cal and supplemental funding remains unclear. Further introduction of managed care in the region will also impact these providers. A number of rural hospitals have closed in recent years and more closures are possible in the wake of financing and regulatory changes. In this context, the San Joaquin Valley had a relative under-supply of hospital beds in 2003 with 2.4 available hospital beds per 1000 population, compared to a statewide average of 2.6 per 1000 population.

The Medicare program is also a major payer for hospital care in the San Joaquin Valley counties. Hospitals in the region receive among the lowest Medicare fee-for-service reimbursements in the nation, and overall Medicare per enrollee fee-for-service rates are averaging 56-75% of average national rates. These low rates reflect patterns in amounts and types of care provided, rather than differences in demographics of the aged or local prices for services. For a full discussion of this topic refer to: *Geographic Variation in Medicare per Capita Spending: Should Policy Makers be Concerned?,* Mathematica Policy Research Inc., Policy Synthesis Report #6 (Gold, 2004). It appears that as a reflection of supply problems, such as specialty practitioner shortages, high reliance on Medi-Cal, and high rates of persons going out of the region to obtain specialty care, that Medicare demand in the region is "deficient" and area providers are not receiving adequate funding to increase services and thus stimulate appropriate demand.

3. **Reliance on Medi-Cal**: The San Joaquin Valley counties had 947,511 persons or 26.2% of their population enrolled in Medi-Cal in fiscal year 2003-2004. As shown in Table 6, this was a higher Medi-Cal enrollment rate than for California as a whole, where 18% are enrolled in this program. Further, Medi-Cal per enrollee payment levels were consistently lower than for the state as a whole, and in the case of Merced County, almost 50% lower than the state average. Although new Medi-Cal initiatives seek to introduce mandatory managed care for enrolled children and families through a new geographic managed care approach for Fresno, Madera, Merced and possibly Kings counties, historically low reimbursement rates in the region and an under-developed delivery system may not be able to manage this transition without serious upheaval. This approach may be even more dangerous for the most fragile of Medi-Cal enrollees, such as the aged, blind and disabled.

   In 2004, 69,443 or 13.8% of the region's Medi-Cal enrollees were aged, blind and disabled and 74% of these were individuals qualified for both Medi-Cal and SSI/SSP because of complex chronic diseases and associated disabilities. Individuals with these complex health and functional status challenges historically have more expensive patterns of service use and worse outcomes in the absence of programs that coordinate acute, long-term care, and supportive services on an ongoing basis. Unfortunately, however, the region's counties have not developed care management programs comparable to those in more urbanized counties of California to address the issues of chronic illness and care.

   Closely linked to Medi-Cal challenges for the region, is the heavy reliance on the State Children Health Insurance Program (SCHIP), called "Healthy Families" in California. Although about 80% of uninsured children in the region are eligible for this public insurance program, the program disenrolls three children for every four that are enrolled. New approaches to enrollment management that maximize children's access to appropriate health care are a crucial need for low-income families in the San Joaquin Valley.

More generally, as California seeks to hold state Medi-Cal expenditures to little or no growth in the coming years, this heavy reliance on Medi-Cal and historically low payment levels may make it increasingly difficult to meet demand for publicly subsidized care.

4. **Agricultural and Seasonal Workforce**: As the California region whose economy is most dependent upon agricultural production, the San Joaquin Valley is home to a disproportionately large share of the migrant workforce. Other important industries in the region provide shifting seasonal employment. This economic structure is often associated with relatively low-paying jobs and low rates of employer-based insurance. Over one in four non-elderly adults lacked coverage for part of past year. This causes a shift of cost burden for care to local sources creating even more problems

   Another factor associated with this economy are a high proportion of immigrants in the region (both documented and undocumented) who face language barriers, cultural barriers, and perceptions of risk in using available services. There was a 50% increase in the San Joaquin Valley's foreign-born population from 1990-2000 and yet, only 31% were naturalized citizens in 2000 compared with 39% in the state. In mixed-status families (for example, child is a citizen but parent is not) there may be additional barriers to appropriate health care use for the local economy.

   Migrant farm workers and other seasonal employees, who are documented immigrants, also face additional barriers to health care because of residential mobility or inconsistent employment. Obtaining consistent healthcare is a particular challenge for these populations because of county residence requirements on eligibility and difficulty maintaining full records on individual health needs. Many have concluded that new mechanisms for eligibility and new approaches to medical records are needed to improve care for these populations. Efforts to address these problems are in early stages.

Summary

San Joaquin Valley communities suffer from poor health status and limited access to health services. Despite resources invested in health programs and care in recent years, the health status of San Joaquin Valley residents still falls short of statewide and national averages in many cases. The San Joaquin Valley continues to have high rates of disease, poor community health, and a lack of adequate provider networks and care management systems. Our counties lead the state in rates of infant mortality, teen births, and late access to prenatal care. San Joaquin Valley residents have a harder time than do other Californians in finding care due to lack of health insurance, a scarcity of providers, and language and cultural barriers.

Even with state-wide advances in medical care, many San Joaquin Valley residents still lack the most basic of services. Rising health care costs to treat chronic disease, under-developed preventive health services, and heavy reliance on state and federal funding in an era of budgetary deficits, and the potential redesign of the Medi-Cal system will further threaten the San Joaquin Valley's health care delivery system and the health status of the regions population. The complex interdependence of demographic, economic, environmental, health status and health system issues affecting San Joaquin Valley residents requires immediate and systematic long-term planning for coordinated action at the local, county, state and national level.

Table 1

San Joaquin Valley Demographics, 2003

Demographic Characteristics	Fresno	Kern	Kings	Madera	Merced	San Joaquin	Stanislaus	Tulare	San Joaquin Valley	California
Population[1]	850,325	713,087	138,564	133,463	231,574	632,760	492,233	390,791	3,582,797	35,484,453
Population per Square Mile[2]	142	87	99	62	118	441	323	81	130	230
% White, non Hispanic[3]	40.4%	50.0%	42.4%	47.5	41.7%	48.2%	58.4%	42.5%	47.0%	47.4%
% Hispanic/Latino[3]	44.0%	38.4%	43.6%	44.3%	45.4%	30.5%	31.7%	50.8%	40.0%	32.4%
% American Indian[3]	0.8%	0.9%	1.0%	1.4%	0.6%	0.7%	0.8%	0.8%	0.8%	1.3%
% Asian[3]	8.2%	3.3%	3.0%	1.3%	7.0%	11.5%	4.3%	3.3%	6.2%	10.9%
Pacific Islander[3]	0.1%	0.1%	0.2%	0.1%	0.1%	0.3%	0.4%	0.1%	0.2%	0.3%
% African American[3]	5.1%	5.9%	8.2%	3.9%	3.6%	6.5%	2.4%	1.4%	4.7%	6.5%
% Multirace[3]	1.4%	1.5%	1.5%	1.5%	1.6%	2.4%	2.0%	1.1%	1.4%	1.9%
% 0-19 Years[2]	33.7%	33.5%	31.0%	31.4%	36.0%	33.0%	33.0%	35.7%	33.5%	29.1%
% 18-64 Years[2]	56.6%	57.3%	61.7%	79.4%	55.0%	57.1%	57.0%	54.9%	56.9%	60.3%
% Over 65 Years[2]	9.7%	9.2%	7.3%	10.8%	9.0%	9.9%	10.0%	9.4%	9.5%	10.6%
Per Capita Personal Income[4]*	$23,492	$22,635	$18,581	$19,617	$20,623	$24,119	$23,642	$21,193	$20,370	$32,989
% 25 years+ Without High School Diploma[5]	27.3%	26.6%	30.2%	33.1%	29.8%	23.0%	31.5%	38.3%	28.6%	21.0%
Annual Unemployment Rate[6]	11.8%	10.3%	12.1%	10.4%	11.6%	9.1%	9.8%	12.4%	10.7%	6.8%
% of Total Population Below 100% of FPL[5]	27.8%	22.4%	20.5%	21.3%	23.2%	14.9%	15.9%	29.3%	22.2%	16.9%
% of Children, Under 18, in Families with Income Below 100% of the FPL[5]	36.0%	30.0%	28.0%	29.0%	31.0%	12.0%	19.0%	39.0%	27.7%	22.0%

Sources: 1. U.S. Census Bureau. American Community Survey 2003.
2. Rand California, 2003a.
3. California Department of Finance, Demographic Research Unit, 2004.
4. California Department of Finance, Economic Research, 2002.
5. UCLA Center for Health Policy Research, 2005.
6. California Employment Development Department, Labor Market Information Division, 2003.

** 2003 data on personal income was not available so 2002 data was substituted.*

Table 2

Summary of Healthy People 2010 Leading Health Indicators for the San Joaquin Valley, California and the Nation, 2003

Health Indicator	San Joaquin Valley Compared with California	San Joaquin Valley Compared with the Nation	San Joaquin Valley Compared with *Healthy People 2010* Target	Progress since the *2003 Profile*
Physical Activity				
Adults	Similar	Similar	No Data	No Data
Adolescents	Similar	Similar	Did Not Meet Target	No Data
Overweight and Obesity				
Adults	Worse	No Data	Did Not Meet Target	No Change
Adolescents	Similar	Similar	Did Not Meet Target	No Change
Tobacco Use				
Adults	Worse	Better	Did Not Meet Target	No Change
Adolescents	Similar	Better	Met Target	No Data
Substance Abuse				
Adults - Binge Drinking	Similar	Better	Did Not Meet Target	No Change
Adults - Illicit Drug Use	No Data	No Data	No Data	No Data
Adolescents* - Alcohol Use	Similar	Better**	Did Not Meet Target	No Data
Sexual Behavior				
Adults - Condom Use	No Data	No Data	No Data	No Data
Adolescents - Abstain/Condom Use	Similar	No Data	Did Not Meet Target	No Data
Mental Health				
Adults - Treatment for Depression	Similar	Similar	Did Not Meet Target	No Data
Injury and Violence				
Motor Vehicle	Worse	Worse	Did Not Meet Target	No Data
Homicide	Similar	Similar	Did Not Meet Target	No Data
Environmental Quality				
Air Quality	Worse	Worse	Did Not Meet Target	Worse
Second Hand Smoke	No Data	No Data	No Data	No Data
Immunization				
Childhood	Similar	Similar	Did Not Meet Target	Better
Adolescents	Similar	Better	Met Target	Better
Flu Shots	Worse	Similar	Did Not Meet Target	Better
Access to Health Care				
Health Insurance	Similar	Similar	Did Not Meet Target	No Change
Source of Care	Similar	Similar	Met Target	No Change
Prenatal Care	Worse	No Data	Did Not Meet Target	No Data

*Data on drug use was not available

**When comparing binge drinking in underage drinkers ages 12-20

Table 3

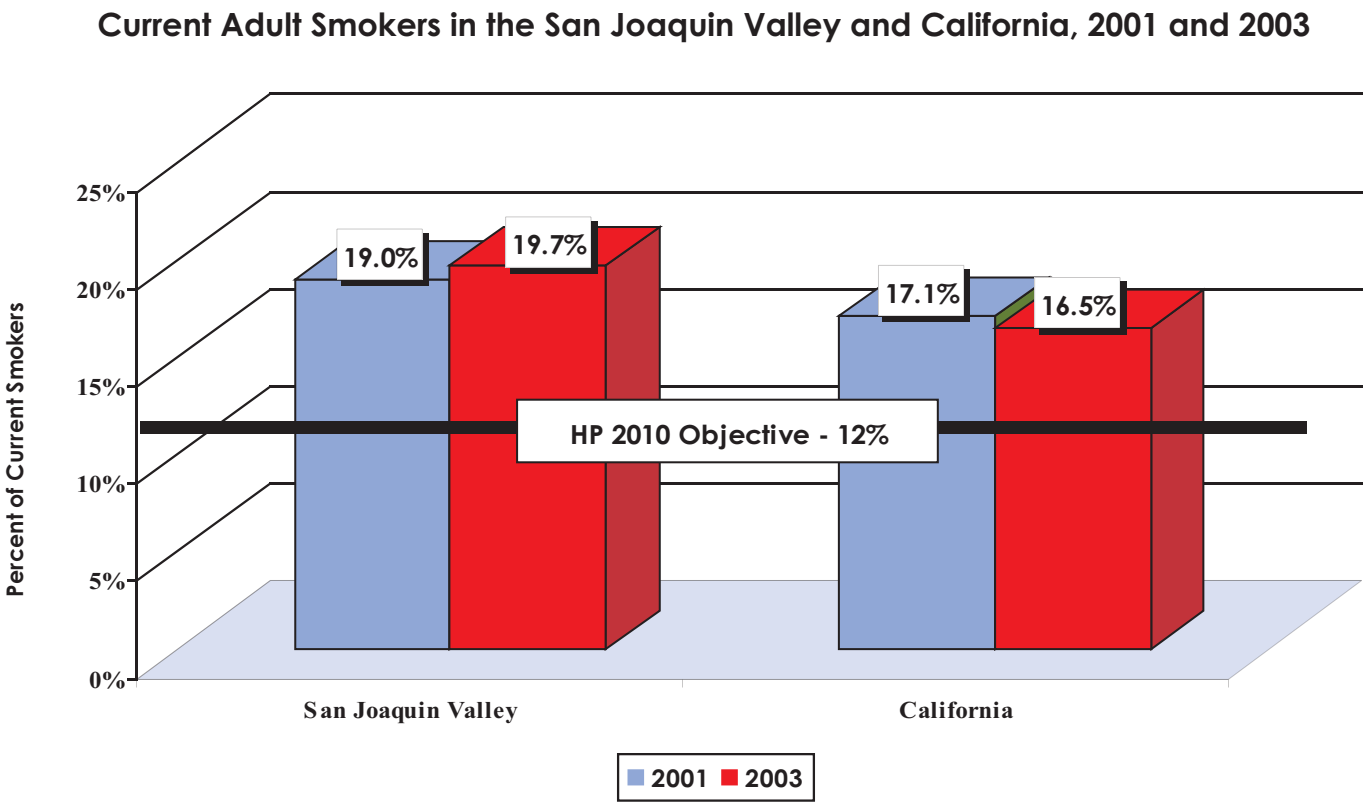
Overweight and Obesity by Age Group
San Joaquin Valley and California, 2001 and 2003

County	Ages 12-17		Ages 18-64		Age 65+	
	2001	2003	2001	2003	2001	2003
Fresno	14.1%	13.4%*	65.0%	61.7%	55.3%	67.9%
Kern	7.7%*	17.1%*	61.4%	63.5%	50.8%	72.5%
Kings	16.3%	16.1%*	63.5%	67.5%	58.0%	59.2%
Madera	11.5%*	16.6%*	66.1%	62.7%	58.6%	63.5%
Merced	18.2%*	21.4%	67.4%	62.6%	67.2%	69.0%
San Joaquin	17.9%	13.7%*	66.9%	61.3%	62.3%	55.7%
Stanislaus	12.9%*	8.2%*	62.8%	64.5%	53.4%	71.8%
Tulare	7.6%*	21.6%	71.0%	68.1%	56.1%	62.0%
San Joaquin Valley	**12.8%**	**15.2%**	**65.1%**	**63.4%**	**56.5%**	**66.4%**
California	**12.2%**	**12.4%**	**55.0%**	**55.5%**	**54.3%**	**56.0%**
Healthy People 2010 Objective	**5.0%**	**5.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**

Source: UCLA Center for Health Policy Research, 2001; 2003.

* *Statistically unstable*

Figure 1



Source: UCLA Center for Health Policy Research, 2003; 2005.

Table 4

Death Rates from Motor Vehicle Accidents and Homicide In the San Joaquin Valley and California, Averaged 2001-2003

County	# of Deaths from Motor Vehicle Crashes	Rate of MVD* per 100,000	# of Deaths from Homicide	Rate of Homicides per 100,000
Fresno	181.3	21.7	62.0	7.4
Kern	144.3	20.7	50.0	7.2
Kings	33.7	24.9	5.3	3.9
Madera	37.0	28.6	8.7	6.7
Merced	53.7	24.0	13.3	6.0
San Joaquin	110.7	18.2	54.0	8.9
Stanislaus	96.7	20.2	27.0	5.6
Tulare	88.7	23.1	26.7	7.0
San Joaquin Valley	**657.4**	**19.1**	**247.0**	**7.1**
California	**4189.0**	**11.9**	**2413.7**	**6.8**
***HP 2010* Objective**		**9.0**		**3.2**

Source: California Department of Health Services, 2005.

**MVD = Motor Vehicle Deaths*

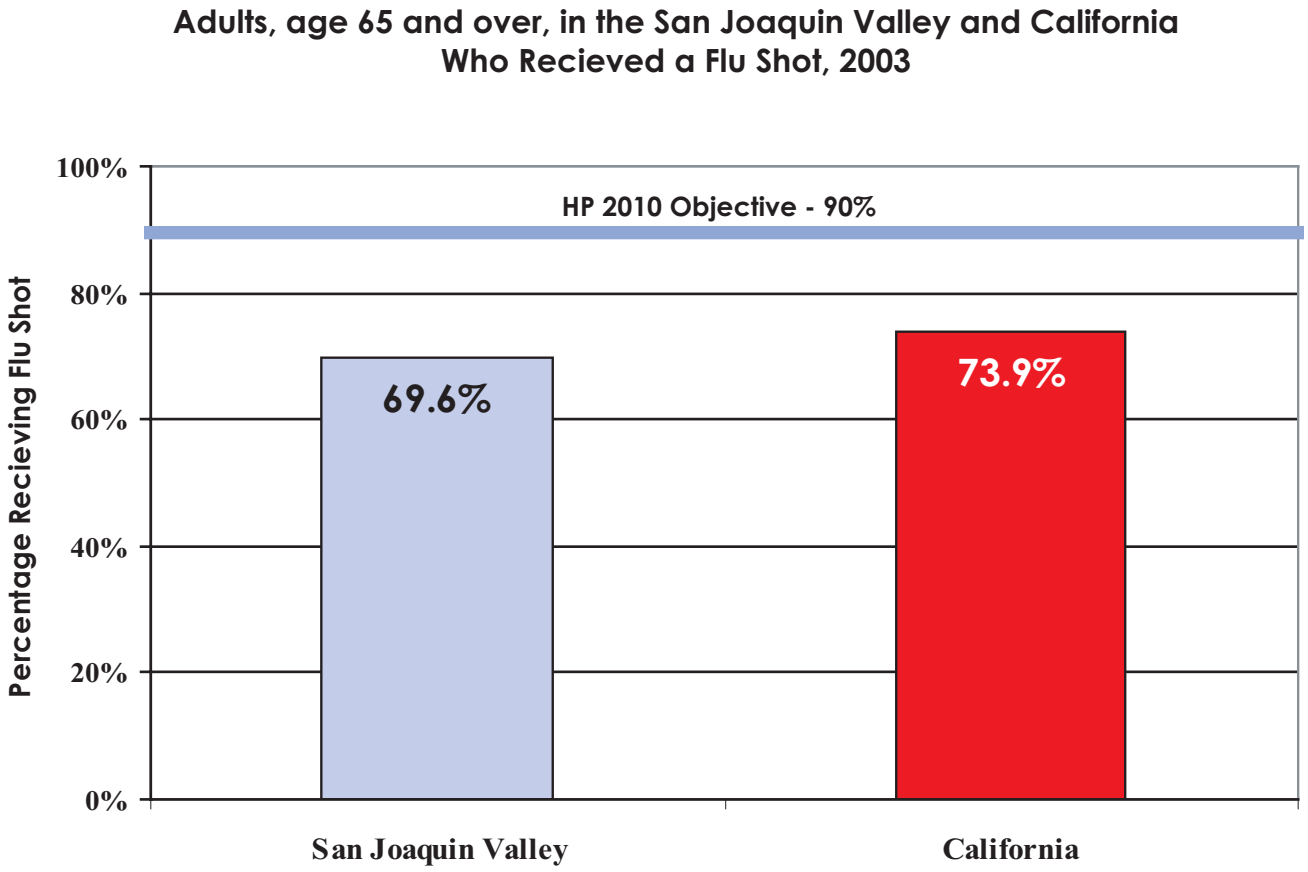
Table 5

Number of High Ozone Days per Year by County, San Joaquin Valley, 2003 & 2004

	2003				2004			
County	# of Orange Days *Unhealthy for Sensitive Groups*	# of Red Days *Unhealthy*	# of Purple Days *Very Unhealthy*	Total High Ozone Days	# of Orange Days *Unhealthy for Sensitive Groups*	# of Red Days *Unhealthy*	# of Purple Days *Very Unhealthy*	Total High Ozone Days
Fresno	197	66	4	267	223	59	3	285
Kern	212	46	0	258	225	66	1	292
Kings	89	7	0	96	58	2	0	60
Madera	39	1	0	40	44	1	0	45
Merced	114	7	1	122	130	8	1	139
San Joaquin	8	0	0	8	7	0	0	7
Stanislaus	44	2	0	46	53	1	0	54
Tulare	221	19	0	240	228	28	0	256

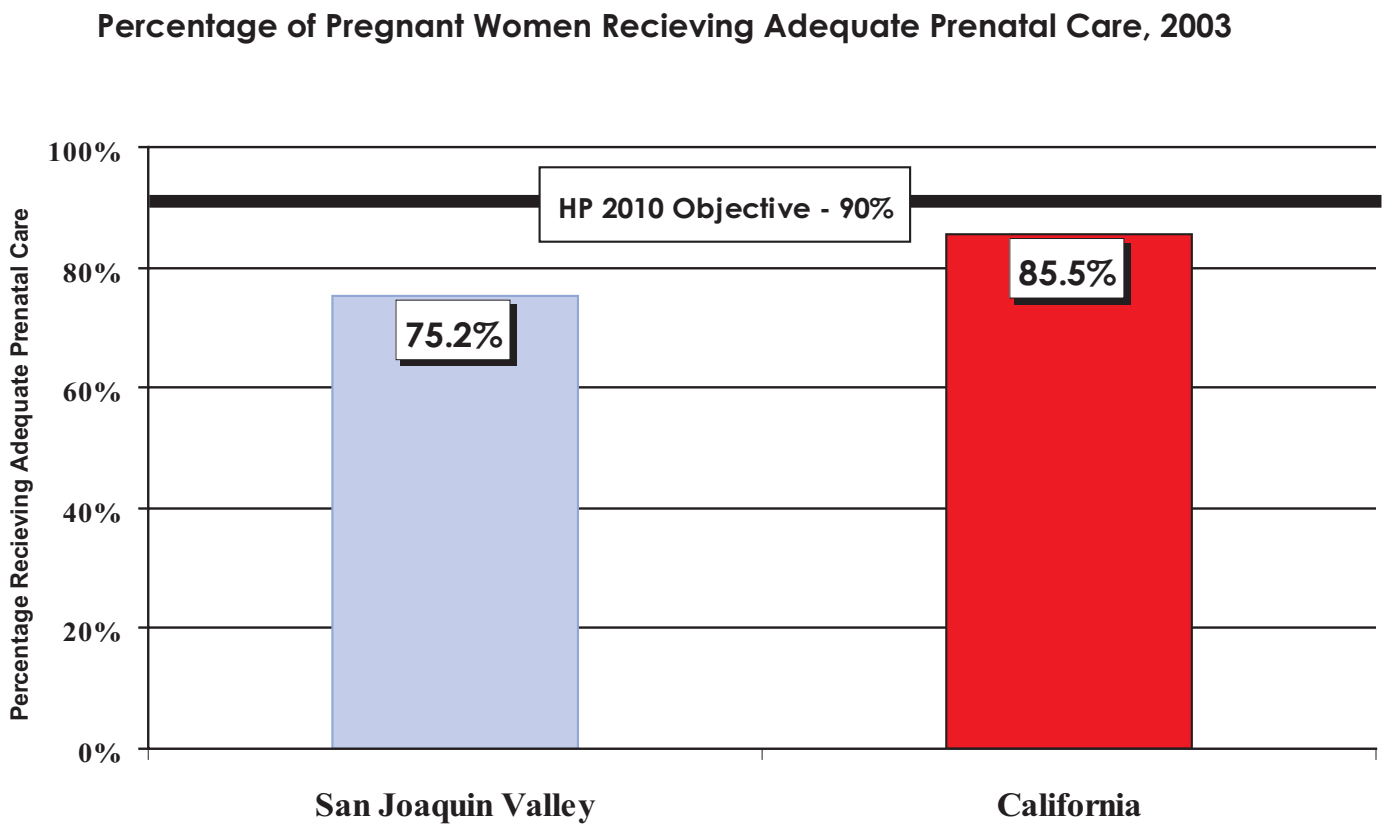
Source: American Lung Association, 2004; 2005.

Figure 2



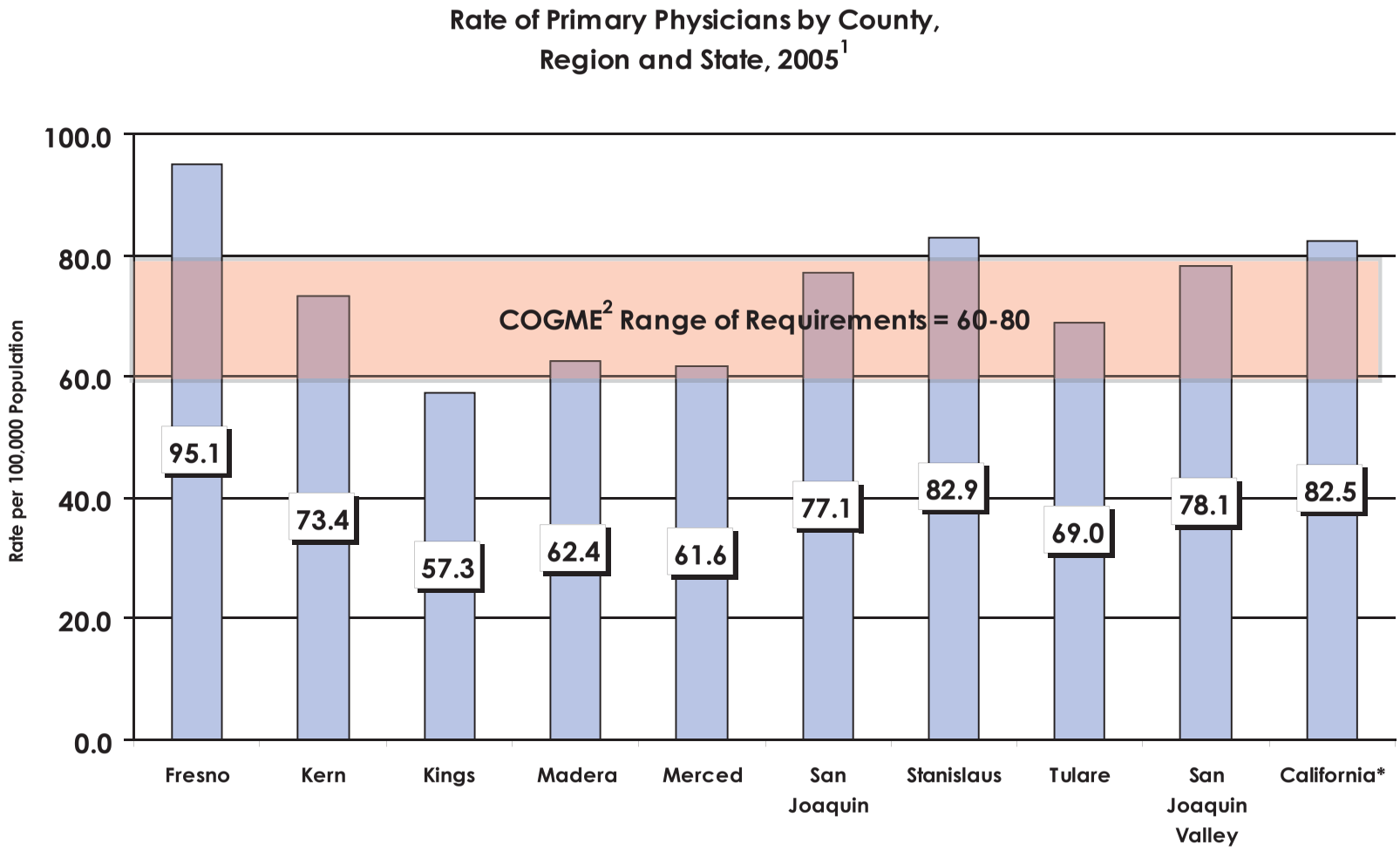
Source: UCLA Center for Health Policy Research, 2005

Figure 3



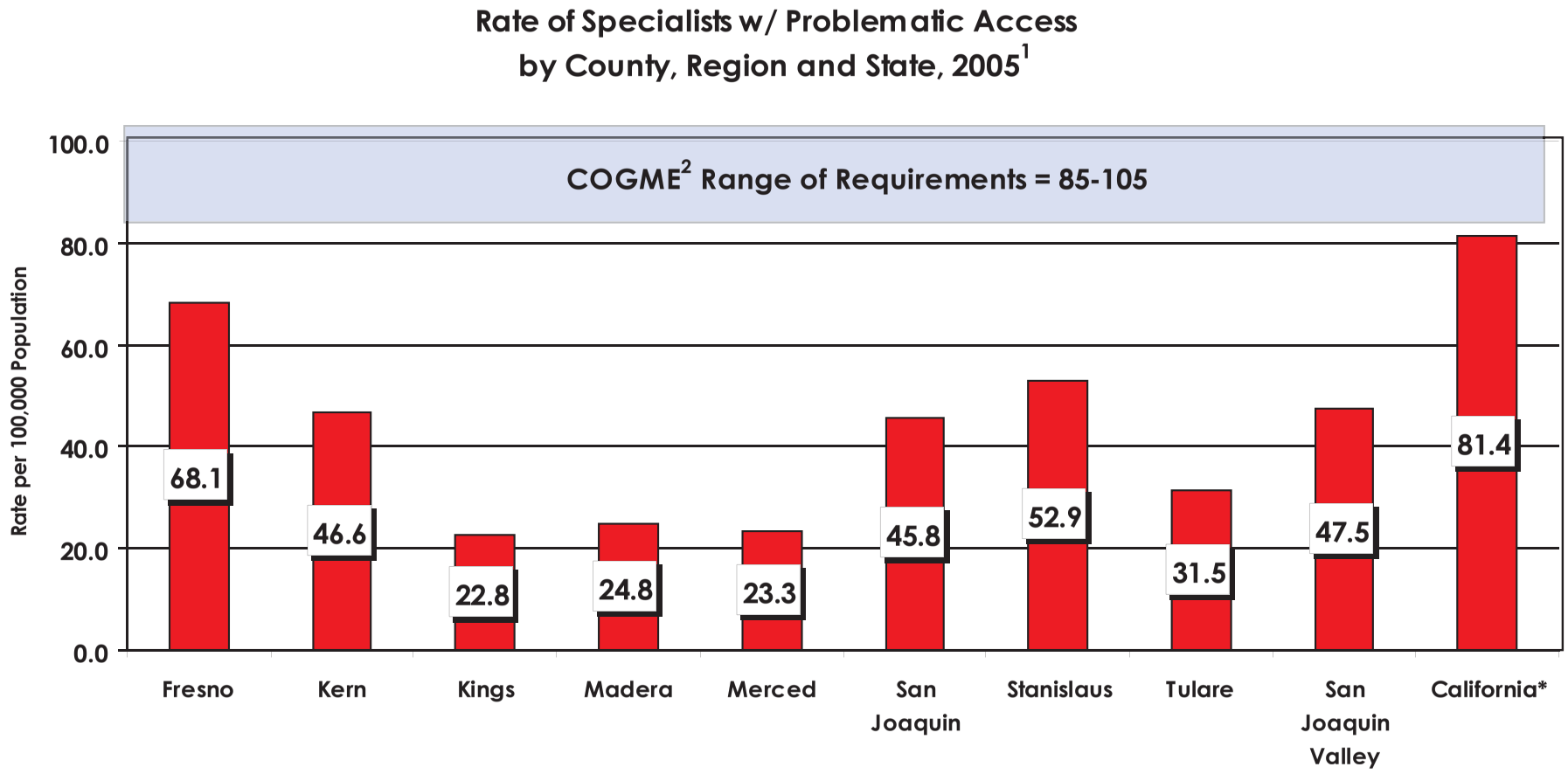
Source: Capitman, et al., 2005.

Figure 4



[1]Rates based on data from the AMA Physician Related Data Resources and California Department of Finance
[2]Council of Graduate Medical Education
*2005 data was not available for California, so 2002 data was used

Figure 5



[1]Rates based on data from the AMA Physician Related Data Resources and California Department of Finance
[2]Council of Graduate Medical Education
*2005 data was not available for California, so 2002 data was used

Table 6

Medi-Cal Program Characteristics and the San Joaquin Valley: Persons Enrolled in Relation to Poverty and Medi-Cal Spending

County	# Enrolled in Medi-Cal	Cost per Enrollee w/ DSH 2001	Cost per Enrollee w/o DSH 2001	Managed Care	# of Enrollees per 100 Population (2003-04)	% Below FPL (1999/2003)
Fresno	255,416	$2,564.84	$2,368.18	Yes	29.6	22.9/21.8 [d]
Kern	183,416	$2,609.24	$2,434.73	Yes	25.5	20.8/18.1 [e]
Kings	29,148	$2,653.04	$2,546.16	No	20.6	19.5/NA [f]
Madera	34,733	$3,001.53	$2,616.80	No	25.7	21.4/NA [f]
Merced	69,965	$1,982.71	$1,957.00	No	30.1	21.7/NA [f]
San Joaquin	133,941	$2,922.42	$2,826.66	Yes	21.2	17.7/14.2 [b]
Stanislaus	111,627	$2,669.85	$2,584.01	Yes	22.7	16.0/12.9 [c]
Tulare	129,265	$3,344.49	$3,339.97	Yes	32.6	23.9/22.9 [a]
California	6,514,384	$3,990.94	$3,809.00	Yes	18.0	14.2/13.4